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**FINAL ENVIRONMENTAL ASSESSMENT**

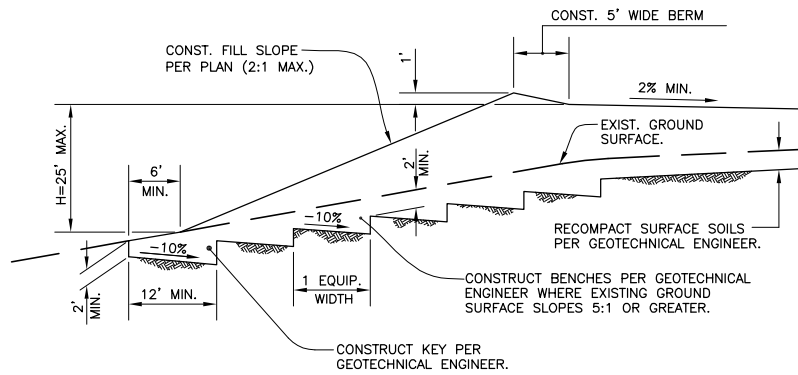
*SANTA BARBARA COUNTY PARKS WATER SYSTEM UPGRADES AT LAKE  
CACHUMA CAMPGROUND*

**Appendix A**  
**Preliminary Project Designs Set 1**

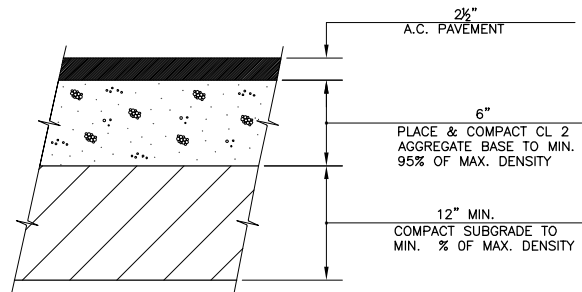
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June 2010

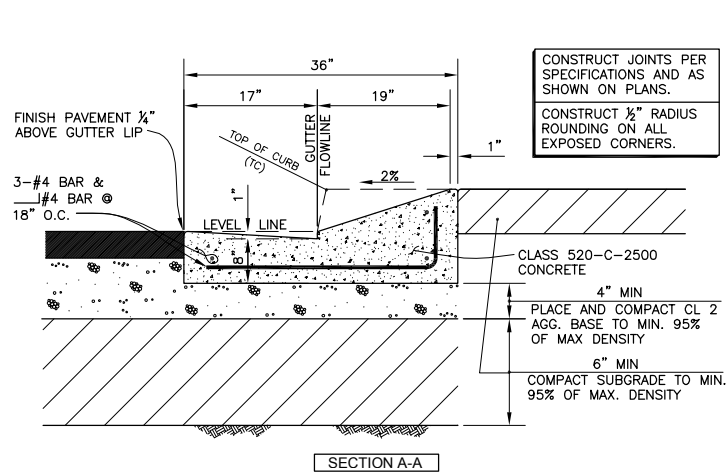
\\System41\Share\ShareCAD\DWG\0352\WSDS\_CD-1\_CD-4.dwg, CD-1 pdf, 5/20/2009 2:56:37 PM, ssoria, Bluebeam PDFPrinter HighRes.pcs; ANSI\_B (11.00\_x\_17.00\_inches); 1:2.16055



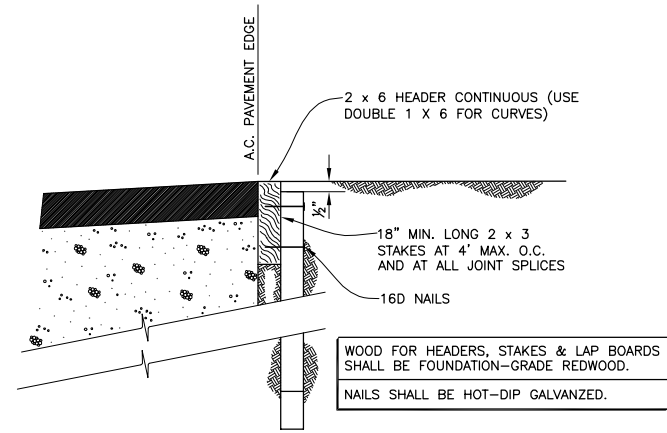
1 FILL SLOPE KEY AND BENCH DETAIL  
NOT TO SCALE



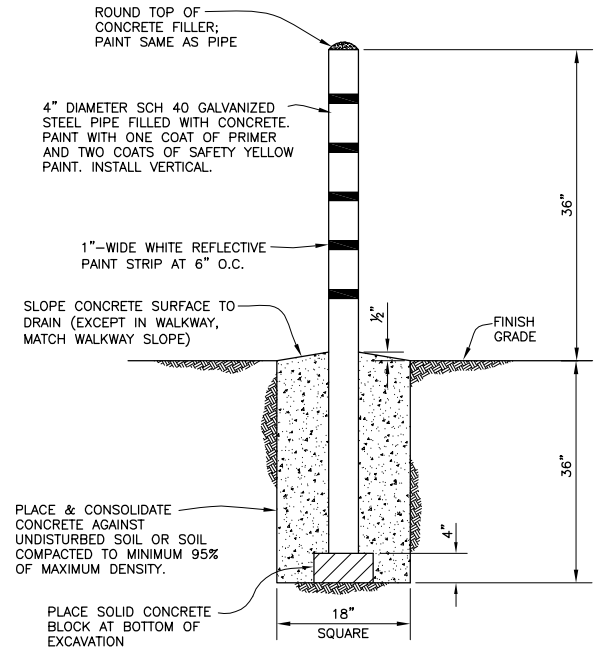
2 TYPICAL A.C. PAVEMENT STRUCTURAL SECTION  
NOT TO SCALE



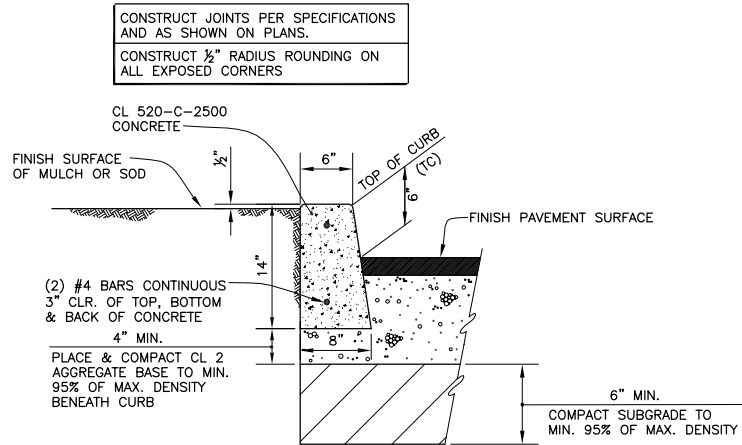
3 MOUNTABLE CURB & GUTTER DETAIL  
NOT TO SCALE



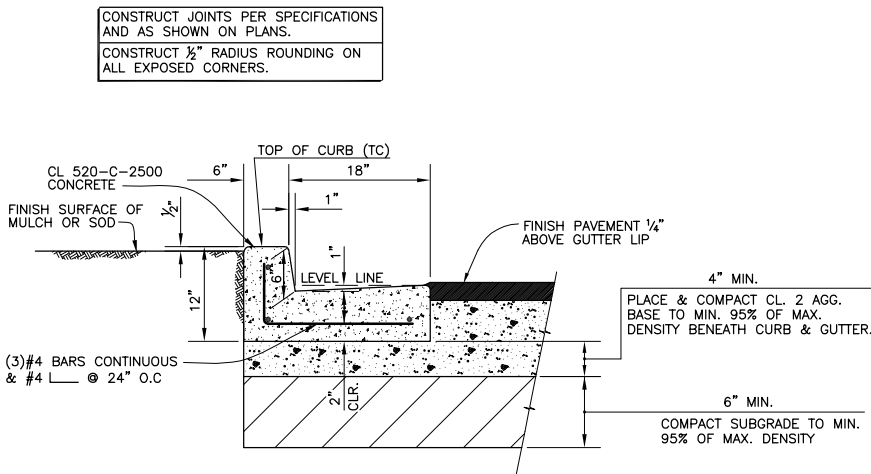
4 2 x 6 WOOD HEADER DETAIL  
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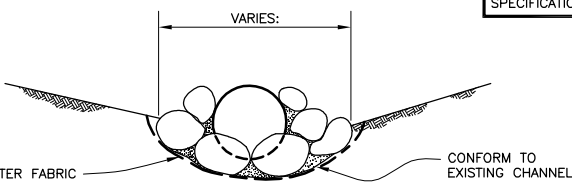
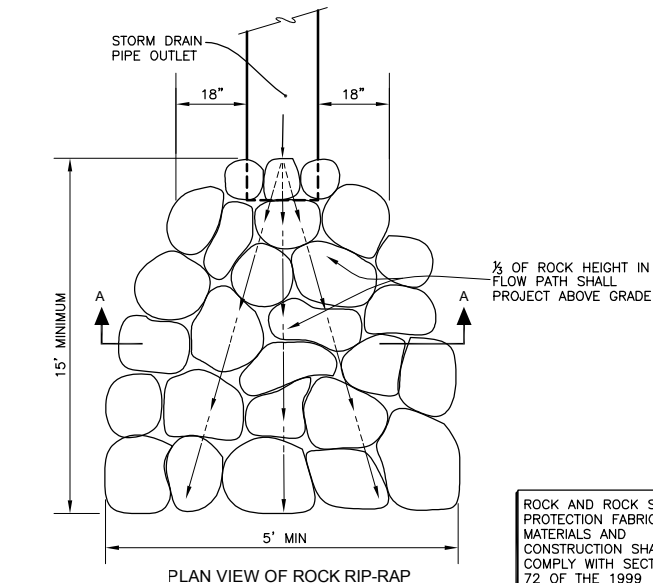
5 GUARD POST DETAIL  
NOT TO SCALE



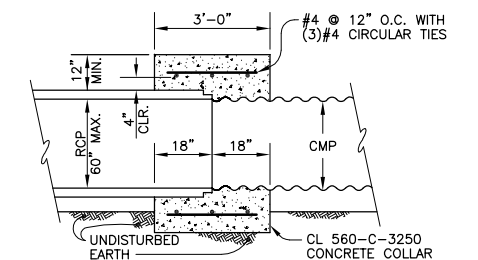
6 6" CURB DETAIL  
NOT TO SCALE



7 6" CURB / 18" GUTTER DETAIL  
NOT TO SCALE



9 SECTION A-A UNGROUTED ROCK RIP-RAP ENERGY DISSIPATOR DETAILS  
NOT TO SCALE



10 RCP/CMP JUNCTION COLLAR DETAIL  
NOT TO SCALE

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NO.	DESCRIPTION	DATE	APPROVED



**FLOWERS & ASSOCIATES, INC.**  
CIVIL ENGINEERS  
201 N. Calle Cesar Chavez, Suite 100 Santa Barbara, CA 93103  
Telephone (805) 966-2224  
BY: *[Signature]* PROJECT ENGINEER DATE: 5/20/09

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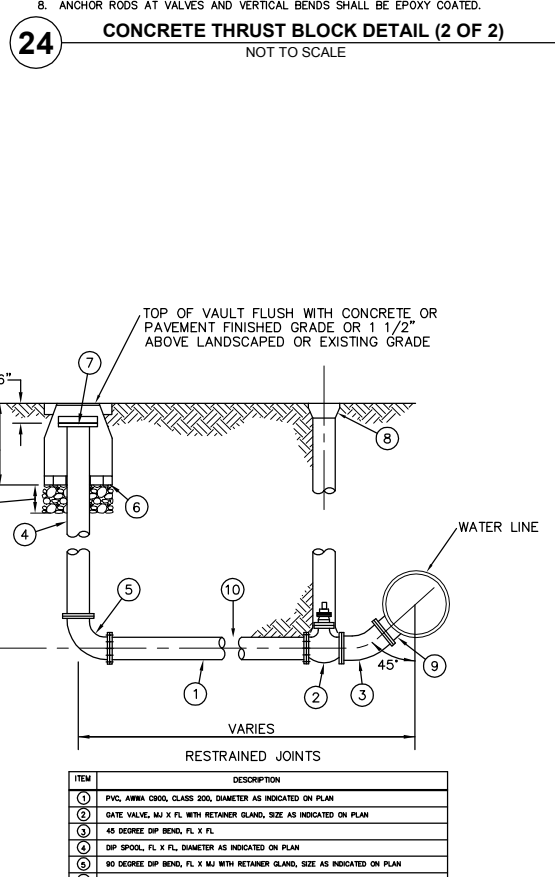


COUNTY OF SANTA BARBARA  
**COUNTY PARKS**  
610 Mission Canyon Road  
Santa Barbara, CA 93105

Design: ELF Check: BS  
Drawn: SS  
Project Engineer:  
Date:  

**SITE DETAILS**  
LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS  
COUNTY OF SANTA BARBARA, CALIFORNIA

**CD-1**  
SHT. 23 OF 35  
W.O. 0352

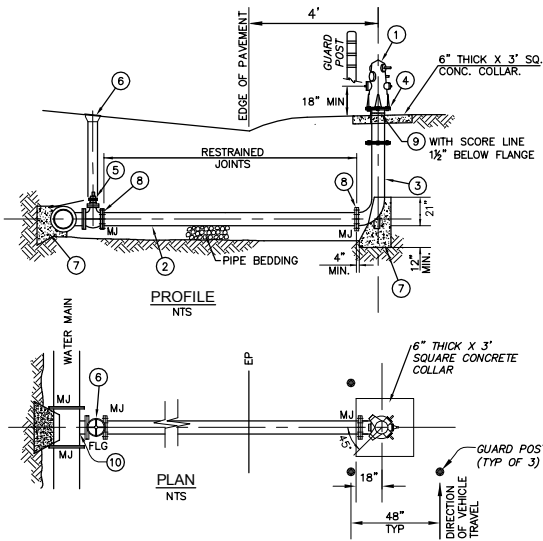


ITEM	DESCRIPTION
1	PVC, ANMA 8000, CLASS 200, DIAMETER AS INDICATED ON PLAN
2	DATE VALVE, MJ X FL, WITH RETAINER GLAND, SIZE AS INDICATED ON PLAN
3	45 DEGREE DIP BEND, FL X FL
4	DIP SPOOL, FL X FL, DIAMETER AS INDICATED ON PLAN
5	90 DEGREE DIP BEND, FL X FL WITH RETAINER GLAND, SIZE AS INDICATED ON PLAN
6	30" TO 36" DIAMETER CIRCULAR VALVE WITH REINFORCED POLYMER COVER MARKED "BLOW OFF
7	BLIND FLANGE, FASTENED WITH STAINLESS STEEL BOLTS & NUTS
8	ADJUSTABLE VALVE CAN
9	MJ X FL TEE FOR DI OR PVC MAN, WELDED SADDLE WITH FLANGED OUTLET FOR STEEL MAN
10	LAYOUT AND REQUIRED FITTINGS PER PLAN

<p style="text-align: center;"><b>PIPING DETAILS</b></p> <p style="text-align: center;">LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS</p> <p style="text-align: center;">COUNTY OF SANTA BARBARA, CALIFORNIA</p>	<b>CD-2</b>
	SHT. 24 OF 35

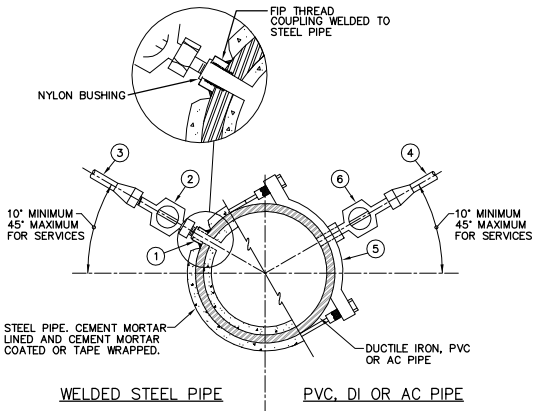


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ITEM	DESCRIPTION
1	WET BARREL BRONZE FIRE HYDRANT WITH BRONZE CAPS
2	6" DIAMETER DUCTILE IRON PIPE (8" WITH REDUCER AT BURY SHERE CALLED FOR ON THE PLANS)
3	6" DUCTILE IRON BURY WITH 90° BEND MJ X FL, LENGTH AS REQUIRED (24" TYP)
4	HOLLOW BOLTS ON TOP FLANGE (TIPS DOWN)
5	TEE OR TAPPING SLEEVE WITH 6" FL X MJ GATE VALVE
6	ADJUSTABLE VALVE CAN
7	CONCRETE THRUST BLOCKS CONSTRUCTED WITH A MINIMUM 18 SF OF BEARING AREA
8	MECHANICAL JOINT WITH RETAINER GLAND
9	6" DUCTILE IRON FLANGED BREAK-OFF SPOOL WITH SCORE LINE, AND 6-HOLE BOLT 10 PATTERN FOR TOP FLANGE, LENGTH AS REQUIRED (12" MIN)
10	TEE, LINE SIZE WITH 6" SIDE OUTLET

**30** FIRE HYDRANT ASSEMBLY DETAIL  
NOT TO SCALE



ITEM	DESCRIPTION
1	STANDARD STEEL COUPLING WITH FIP THREAD WELDED TO STEEL WATERLINE.
2	CORP. STOP WITH MIP THREAD INLET WITH NYLON BUSHING AND FLARED OUTLET. ALL THREADED JOINTS SHALL INCLUDE JOINT COMPOUND.
3	COPPER/BRASS CORP. STOP, VALVE, PIPE, NIPPLE OR FITTING
4	TYPE "K" SOFT COPPER TUBING.
5	BRONZE SERVICE SADDLE WITH FIP THREAD.
6	CORP. STOP WITH MIP THREADED INLET AND FLARED OUTLET. ALL THREAD JOINTS SHALL INCLUDE JOINT COMPOUND.

NOTES

- SERVICE AND OTHER TAPS SHALL NOT BE MADE CLOSER THAN 2 FEET TO A BELL, COUPLING, JOINT, FITTING, OR OTHER SERVICE.
- ANGLE OFFSET SERVICES WITHIN 15' OR LESS OF EACH OTHER SO THEY DO NOT ALIGN DOWN THE PIPE

**31** 2 1/2" AND SMALLER SERVICE CONNECTION  
NOT TO SCALE

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NO.	DESCRIPTION	DATE	APPROVED
REVISIONS			



**FLOWERS & ASSOCIATES, INC.**  
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201 N. Calle Cesar Chavez, Suite 100 Santa Barbara, CA 93103  
Telephone (805) 966-2224

BY: *[Signature]* PROJECT ENGINEER DATE: 5/20/09

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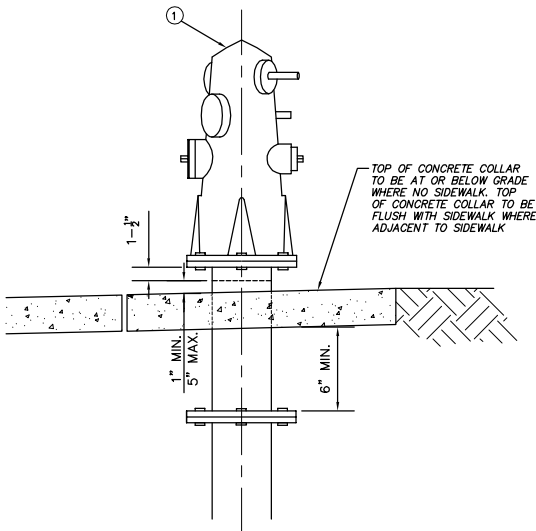


COUNTY OF SANTA BARBARA  
**COUNTY PARKS**  
610 Mission Canyon Road  
Santa Barbara, CA 93105

Design: ELF Check: BS  
Drawn: SS  
Project Engineer:  
Date:

**PIPING DETAILS**  
LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS  
COUNTY OF SANTA BARBARA, CALIFORNIA

**CD-3**  
SHT. 25 OF 35

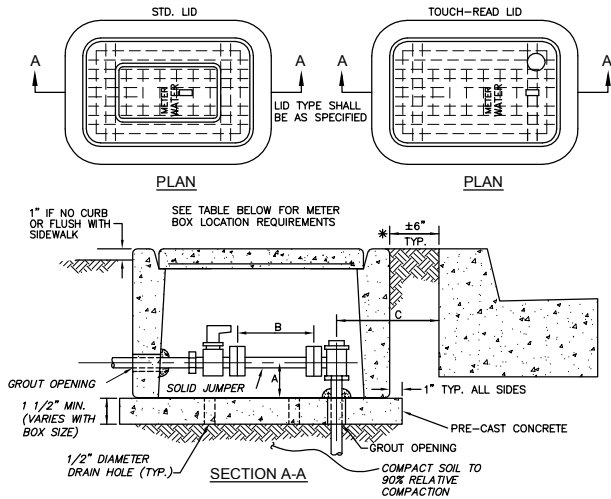


BREAK OFF SPOOL / CONCRETE COLLAR DETAIL

NOTES

- FIRE HYDRANT SHALL BE J. JONES NO. 3765 WITH FACTORY PAINT, ONE COAT XIM POWER SEALER 400 AND TWO COATS AERO-PLATE #462 GLOW BRIGHT YELLOW
- CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH TYPICAL DETAIL.
- BREAK-OFF SPOOL SHALL BE EPOXY COATED.
- IF HYDRANT IS NOT PROTECTED BY CURB, 3 GUARD POSTS SHALL BE PLACED TO PROTECT HYDRANT PER DETAIL.
- FIRE HYDRANT SHALL BE INSTALLED PLUMB.
- REQUIREMENTS. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF FIVE FEET CLEAR OF ABOVE AND BELOW GROUND OBSTRUCTIONS SUCH AS VAULTS, UTILITIES AND DRIVEWAYS, AND TEN FEET CLEAR OF TREES AND BUSHES.
- BRONZE CAPS SHALL BE CHAINED TO HYDRANT AND SHALL HAVE 1/8" DIAMETER WEEP HOLE DRILLED ADJACENT TO OPERATING NUT.

**32** FIRE HYDRANT INSTALLATION DETAIL  
NOT TO SCALE



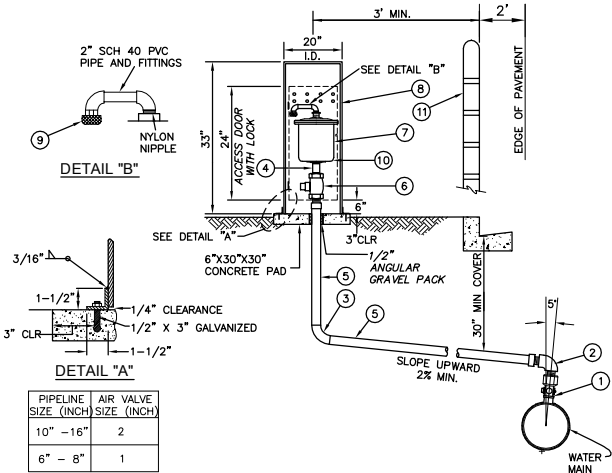
METER SIZE	A	B	C
3/4"	3 1/2"	7 3/4"	10 1/2"
1"	3 1/2"	11"	9 3/4"
1 1/2"	4"	13 1/4"	13"
2"	4"	17 1/4"	11"

CASE NO.	CONDITIONS	METER BOX LOCATION
1	GRASS PARKWAY BETWEEN CURB AND SIDEWALK	6" BEHIND BACK OF CURB (AS SHOWN IN DETAIL ABOVE.)
2	SIDEWALK DIRECTLY BEHIND CURB AND R/W EXTENDS MIN. OF 4' BEHIND SIDEWALK	DIRECTLY BEHIND SIDEWALK.
3	SIDEWALK DIRECTLY BEHIND CURB AND R/W ENDS NEAR BACK OF SIDEWALK.	6" BEHIND BACK OF CURB (AS SHOWN IN DETAIL ABOVE.)

NOTES

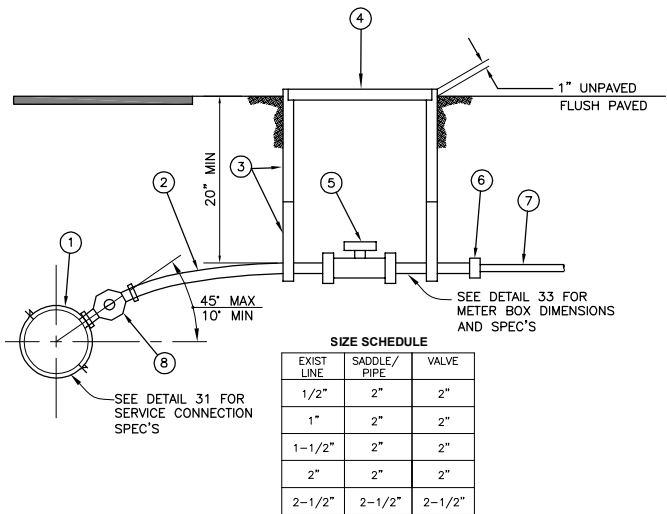
- METER BOX BASE SHALL BE PRE-CAST CONCRETE.
- FOR BOXES IN AREA WHERE VEHICULAR TRAVEL IS ANTICIPATED, A TRAFFIC RATED LID (H-20) WITH READING LID SHALL BE USED.
- ALL JOINTS BETWEEN BASE AND METER BOX AND OPENINGS AT METER BOX INLET & OUTLET SHALL BE MORTARED AS DIRECTED.
- TRAFFIC RATED COVERS WITH READING LID ARE REQUIRED WHERE ROLLED CURB AND/OR NO CURBS HAVE BEEN INSTALLED ALONG EDGE OF PAVEMENT. WHERE NO CURBS EXIST, THE METER BOX SHALL BE LOCATED 15" BEHIND EDGE OF PAVEMENT.
- METERS SHALL BE LOCATED A MINIMUM OF FIVE FEET CLEAR OF ABOVE AND BELOW GROUND OBSTRUCTIONS SUCH AS VAULTS, UTILITIES, AND DRIVEWAYS, AND TEN FEET CLEAR OF TREES AND BUSHES.

**33** METER BOX FOR METERS UP TO 2" DETAIL  
NOT TO SCALE



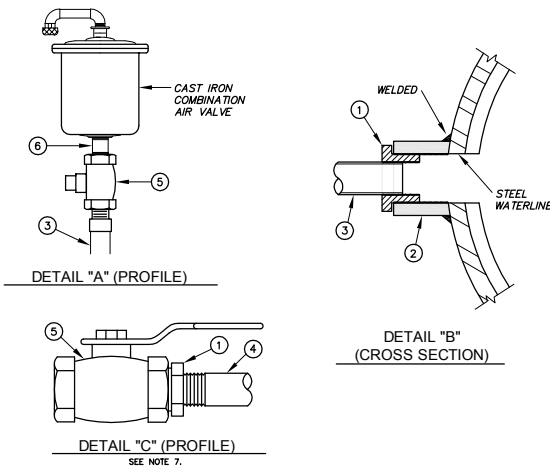
ITEM	DESCRIPTION
1	SERVICE CONNECTION INSTALLED PER STD. DETAIL WITH FIP THREAD OUTLET CORP. STOP
2	2" BRASS 90 DEGREE ELBOW, MIP THREAD X FIP THREAD
3	2" COPPER 90 DEGREE ELBOW, SILVER SOLDERED
4	1 1/2" BRASS NIPPLE WITH 2" NYLON BUSHINGS
5	2" TYPE K SOFT COPPER TUBING WITH MIP ADAPTER, AND HARD COPPER RISER
6	2" BALL VALVE, FIP THREAD X FIP THREAD (WITH HANDLE)
7	2" COMBINATION AIR VALVE
8	20" ID, 10 GAUGE STEEL PIPE, FABRICATED COVER, GALVANIZED, AND PAINTED DARK GREEN
9	INSECT SCREEN
10	BLEED LINE: NYLON BUSHING, 1/4" BRASS NIPPLE, 1/4" BALL VALVE, AND 1/4" PLUG
11	IF NO CURB, CONSTRUCT 3 GUARD POSTS (SEE DETAIL 30 FOR LAYOUT)

**34** 1" & 2" COMBINATION AIR VALVE DETAIL  
NOT TO SCALE



ITEM	DESCRIPTION
1	BRONZE SERVICE SADDLE WITH FIP (THREAD, 2-1/2" MAX.)
2	SCHEDULE 40 PVC PIPE (LINE SIZE OR 2" MIN.)
3	VALVE BOX WITH EXTENSIONS (11" X 17" MIN. CLR INSIDE) ACP E17 OR EQUIVALENT
4	BOLT DOWN GALVANIZED STEEL PLATE, TRAFFIC RATED, "WATER" ON LID.
5	LINE SIZE PVC TRUE UNION VALVE, 2" MIN.
6	CONNECT TO EXISTING LINE WITH FITTINGS AND REDUCERS AS REQUIRED. THREADED CAP AT FUTURE CONNECTION LOCATIONS.
7	EXISTING MINOR DISTRIBUTION LINE, 2-1/2" MAX.
8	CORP. STOP AND PIPE ADAPTOR

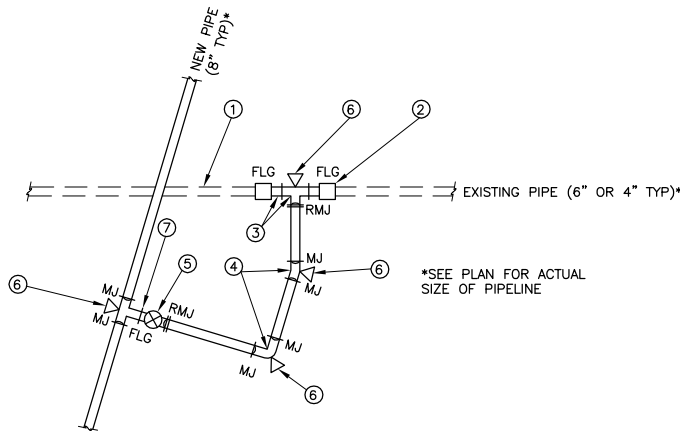
**35** MINOR DISTRIBUTION LINE CONNECTION DETAIL (2-1/2" AND SMALLER)  
NOT TO SCALE



NOTES

- NO DIRECT CONNECTION OF STEEL OR CAST IRON TO BRASS, BRONZE, OR COPPER SHALL BE MADE WITHOUT APPROVAL AND ISOLATORS.
- ONLY NYLON BUSHINGS SHALL BE ALLOWED. PVC BUSHINGS ARE NOT ALLOWED.
- THREDOLETS AND EXTRA-HEAVY HALF COUPLINGS SHALL BE SIZED ONE-HALF INCH LARGER THAN BRASS, BRONZE, OR COPPER CONNECTION TO ALLOW FOR NYLON BUSHING.
- WHERE EXTRA-HEAVY HALF COUPLINGS ARE USED, BASE OF COUPLING SHALL BE GROUND TO MATCH CURVATURE OF STEEL PIPE.
- NYLON BUSHING SHALL BE OMITTED WHERE COPPER/BRASS/BRONZE NIPPLES/PIPES ARE CONNECTED TO BRASS/BRONZE VALVES, AND WHERE GALVANIZED STEEL PIPE IS CONNECTED TO STEEL WATERLINES.
- DETAIL "C" APPLIES ONLY TO ABOVE GROUND INSTALLATIONS SUCH AS WELLS, BOOSTER STATIONS, AND PRESSURE REDUCING STATIONS.

**36** CONNECTION OF DISSIMILAR METALS  
NOT TO SCALE



NOTES:

- POTHOLE EXISTING PIPELINE TO CONFIRM LOCATION, PIPE TYPE, DIAMETER PRIOR TO CONSTRUCTION OR ORDERING PARTS
- CONNECT TO EXISTING PIPE WITH FLANGED COUPLING ADAPTER SIZED TO CONFORM TO NEW PIPE AND EXISTING PIPE. ADDITIONAL ADAPTORS SHALL BE PROVIDED AS REQUIRED TO CONNECT EXISTING PIPE.
- CONNECT TO EXISTING PIPE WITH LINE SIZED TEE AND FLANGED NIPPLES. CONNECT TO EXISTING PIPE WITH LINE SIZED BEND AND FLANGED NIPPLE AT LOCATIONS WHERE A PORTION OF THE EXISTING PIPE IS BEING ABANDONED.
- CONSTRUCT FITTINGS AS REQUIRED TO CONNECT BETWEEN NEW PIPE AND EXISTING PIPE. FITTINGS SHALL BE INSTALLED PER CONSTRUCTION DETAILS.
- CONSTRUCT LINE SIZED VALVE AND FITTING PER CONSTRUCTION DETAILS.
- CONSTRUCT THRUST BLOCKS PER TYPICAL DETAILS.
- CONSTRUCT REDUCER WHERE REQUIRED.

**37** CONNECTION TO EXISTING DISTRIBUTION PIPE DETAIL (4" AND LARGER)  
NOT TO SCALE

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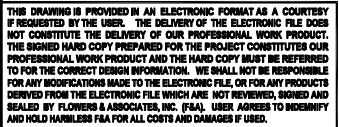
# ESTIMATED EARTHWORK QUANTITIES:

<b>RESERVOIR NO. 2 AREA</b>	
EXCAVATION:	<u>3.500</u> CUBIC YARDS
EMBANKMENT:	<u>3.500</u> CUBIC YARDS

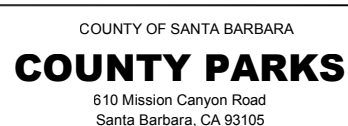
NOTE: SHRINKAGE, CONSOLIDATION AND SUBSIDENCE FACTORS AND LOSSES DUE TO CLEARING AND DEMOLITION OPERATIONS ARE NOT INCLUDED. ESTIMATED EARTHWORK QUANTITIES ARE BASED ON THE APPROXIMATE DIFFERENCE BETWEEN EXISTING GRADES AND PROPOSED FINISH GRADES OR PAVEMENT SUBGRADES, AS INDICATED ON THE PLANS, AND SHOULD VARY ACCORDING TO THESE FACTORS AND LOSSES.

CONTRACTOR SHALL ACCEPT OR CONFIRM EXISTING TOPOGRAPHIC INFORMATION. SHALL REVIEW THE SITE AND THE GEOTECHNICAL REPORT(S) AND MAKE HIS OWN INTERPRETATIONS AND CONCLUSIONS WITH RESPECT THERETO, AND SHALL PERFORM AN INDEPENDENT EARTHWORK ESTIMATE ON WHICH TO BASE HIS BID. ONCE GRADING IS STARTED, THE TOPOGRAPHIC INFORMATION HAS BEEN ACCEPTED BY CONTRACTOR.

UTILITY & SUBSTRUCTURE INFORMATION:			RESPONDED, INFORMATION RECEIVED PLOTTED ON PLANS	DID NOT RESPOND, NOT PLOTTED ON PLANS
COMPANY	CONTACT	PHONE		
P. G. & E.	BARBARA ZINAKORGIAN	(805) 346-2230		
THE GAS COMPANY	KARL MONTELEON	(818) 701-3262		X
THE GAS COMPANY TRANSMISSION	ROSALYN SQUIRES	(818) 701-4546	X	
VERIZON	VICKY ANGEL	(805) 966-0434	X	
COX CABLE OF SANTA BARBARA	DOUG SCHWARZBERG	(805) 881-3841	X	
COUNTY OF SANTA BARBARA ROADS DEPT	WALTER RUBALCAVA	(805) 568-3047	X	
COUNTY OF SANTA BARBARA PARKS DEPT	MITCH MEDEIROS	(805) 886-5076	X	
*CONTACT DID NOT PROVIDE INFORMATION FOR DRAWINGS				



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<p align="center"><b>TITLE SHEET</b></p> <hr/> <p align="center">LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS</p> <p align="center">COUNTY OF SANTA BARBARA, CALIFORNIA</p>	<b>G-1</b>
	<p>SHT. <u>1</u> OF <u>35</u></p>



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## USE OF PLANS

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ELECTRONIC INFORMATION IS INTENDED TO PROVIDE INFORMATION SUPPLEMENTAL AND SUBORDINATE TO THE CONSTRUCTION CONTRACT DOCUMENTS. LAYOUT AND CONSTRUCTION OF PROJECT ELEMENTS SHALL BE BASED ON DIMENSIONS AND INFORMATION INCLUDED ON THE SIGNED AND SEALED CONSTRUCTION CONTRACT DOCUMENTS WHICH SHALL CONTROL OVER ELECTRONIC INFORMATION. USER IS RESPONSIBLE FOR CONFIRMING LOCATION OF PROPOSED IMPROVEMENTS BASED ON DIMENSIONS AND INFORMATION INCLUDED ON THE CONSTRUCTION CONTRACT DOCUMENTS; INCONSISTENCIES BETWEEN THE ELECTRONIC INFORMATION AND THE CONSTRUCTION CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO CONSTRUCTION.

PROJECT ELEMENTS SUCH AS MANHOLES, CATCH BASINS, UTILITY VAULTS, VALVE ASSEMBLIES, STAIRS, RAMP, WALLS, ETC. ARE SHOWN SCHEMATICALLY IN THE ELECTRONIC INFORMATION AND CONSTRUCTION OF THESE ELEMENTS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION NOTES AND DETAILS PRESENTED OR REFERENCED IN THE SIGNED AND SEALED CONSTRUCTION CONTACT DOCUMENTS. IMPROVEMENTS CONSTRUCTED BASED ON ELECTRONIC INFORMATION AND IN CONFLICT WITH THE DRAWING DIMENSIONS, DETAILS, AND THE CONSTRUCTION CONTACT DOCUMENTS SHALL BE REMOVED AND CONSTRUCTED IN THE PROPER LOCATION AND DIMENSIONS AT CONTRACTOR'S SOLE EXPENSE.

DIGITAL DRAWINGS ARE TYPICALLY A COMPILATION OF DRAWINGS FROM A NUMBER OF SOURCES AND, AS SUCH, THERE IS INFORMATION IN THE ELECTRONIC FILE ISSUED BY THE ENGINEER THAT WAS NOT DEVELOPED BY THE ENGINEER AND IS NOT AUTHORIZED BY THE ENGINEER FOR USE BY OTHERS. ELECTRONIC INFORMATION PROVIDED BY THE ENGINEER SHALL ONLY BE APPLICABLE FOR IMPROVEMENTS DESIGNED BY THE ENGINEER AND WHICH ARE SPECIFICALLY DESIGNATED BY CONSTRUCTION NOTES AND/OR DETAILS ON THE SIGNED AND SEALED CONTRACT DOCUMENTS.

IF DIGITAL FILES ARE OBTAINED WITH THE INTENT TO USE THEM FOR PROJECT STAKING, THEY SHALL ONLY BE USED BY A QUALIFIED ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA. DIGITAL INFORMATION SHALL ONLY BE USED FOR STAKING HORIZONTAL LOCATION OF PROPOSED IMPROVEMENTS AFTER IT HAS BEEN CONFIRMED WITH THE SIGNED AND SEALED CONSTRUCTION CONTRACT DOCUMENTS.

THE DIGITAL DRAWINGS ARE NOT INTENDED TO BE USED DIRECTLY FOR CONTROL OF CONTRACTOR'S GRADING OPERATIONS WITHOUT STAKING BY ENGINEER OR LAND SURVEYOR. THE INTERSECTION OF PROPOSED CUT AND FILL SLOPES WITH EXISTING GRADE IS APPROXIMATE WHERE SHOWN ON THE DRAWINGS AND SHALL BE CONFIRMED BY FIELD STAKING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT SLOPES IN CONFORMANCE WITH THE SPECIFIED AND DETAILED REQUIREMENTS CONTAINED IN THE CONTRACT DOCUMENTS.

### INITIAL AND LOCAL BENCHMARK:

FOUND PANEL NO. 8 SHOWN ON PAGE 11 OF 16: ELEVATION 811.2' FOUND PANEL NO. 5 SHOWN ON PAGE 6 OF 16: ELEVATION 752.3' EAST OF EASTLY WALL SHOWN ON PAGE 12 OF 16: ELEVATION = 757.0'  
HORIZONTAL COORDINATE BASIS AND VERTICAL ELEVATION PROVIDED BY FLOWERS & ASSOCIATES PER PACIFIC WESTERN AERIAL SURVEYS MAP 1 OF 16 DATED MARCH 11, 1993: ELEVATION: 755.30' AT CONTROL POINT NO. 1

**CAUTION!** CONFIRM BENCHMARK DATA AND CONDITION WITH PROJECT SURVEYOR CARDENAS AND ASSOCIATES, INC. PRIOR TO USE.

**BASIS OF BEARING:**

BEARINGS AND DISTANCES PLOTTED PER BEST FIT FEATURES SHOWN ON PAGES 6, 11 & 12 OF 16 ON THE AERIAL MAPPING OF LAKE CACHUMA CAMP GROUNDS DATED MARCH 11, 1993.

HIGHWAY 154 RIGHT OF WAY PER CAL TRANS RIGHT OF WAY MAP POST MILE 14.7 ROTATED 0°03'19" CLOCKWISE.

**TOPOGRAPHY:**

EXISTING TOPOGRAPHY COMPILED BY WATERS LAND SURVEYING BASED ON AERIAL MAPPING OF LAKE CACHUMA DATED MARCH 11, 1993, SUPPLEMENTED BY FIELD SURVEYS BY CARDENAS AND ASSOCIATES SURVEYING, INC. AUGUST 23, 2007.

**CONTROL POINTS:**

CP #1	72106.8813	35838.5266	920.9628	CP 12RFB-FLAG)	CP #33	72299.3717	40656.3440	772.4934	CP/PK2
CP #2	72040.4700	36019.9664	904.2936	CP 12RFB-FLAG)	CP #34	72618.7332	40853.8536	755.9270	CP/PK2
CP #3	72073.2401	35811.2945	919.7622	CP CHS X CONG	CP #1001	72556.8921	40962.4040	755.3000	CP PARKS
CP #4	71959.2811	35955.0571	919.0228	CP CHS X CONG	CP #1002	72516.0209	4056.5681	774.1000	CP PARKS
CP #5	71963.5956	35980.7473	919.3837	CP SPK+WHSKR	CP #1003	72512.3359	38621.5689	760.4000	CP PARKS 1045
CP #6	72108.9567	35747.8141	919.7080	CP SPK+WHSKR	CP #1004	72282.0191	38631.3480	766.5000	CP PARKS
CP #7	71877.7953	36021.8216	900.7101	CP SPK+WHSKR	CP #1005	7104.2661	38717.7861	752.3000	CP PARKS
CP #8	71857.2536	36096.0534	886.0627	CP 1X2+TACK	CP #1006	7112.4420	36971.3981	811.2000	CP PARKS 8
CP #9	71884.1093	36144.6951	879.5052	CP 1X2+TACK	CP #1007	71891.0110	36688.2723	808.4000	CP PARKS 2051
CP #10	71868.9821	36273.9915	849.5503	CP 1X2+TACK	CP #1008	72618.0620	36957.8514	827.1000	CP PARKS 2053
CP #11	71909.0336	36136.7939	859.3837	CP 1X2+TACK	CP #1009	72139.3939	36857.1282	760.4034	CP/PK3 1025
CP #12	71899.071	36448.4201	839.0670	CP 1X2+TACK	CP #1010	72512.3359	38621.5689	760.4034	CP/PK3 3
CP #13	71867.9085	36542.7048	813.3342	CP 1X2+TACK	CP #2908	72556.8921	40961.9222	755.4638	CP1001
CP #14	71922.9038	35844.8958	917.5457	CP SPK+WSKPR	CP #2909	72821.9912	38631.2225	766.5680	CP 4 PRK LOK 1004
CP #15	72249.0586	36566.4334	771.4910	CP/PK 2	CP #2910	72292.4420	36971.3981	811.2000	CP PK CL RD 1006
CP #17	72282.0505	38631.6899	766.3684	CP CK	CP #2911	71239.5558	3671.8156	761.7691	CP CK AC BECM NEE
CP #18	72195.3535	36222.1960	900.9628	CP CK	CP #2912	72512.3359	38621.5689	760.4034	CP/PK3 1025
CP #20	71912.5071	36971.9417	810.9608	CP CK	CP #2913	71179.0264	36540.1022	774.0937	CP 1X2
CP #21	72106.8813	35838.5266	920.9628	CP 1 RES					
CP #22	72018.9071	35747.8104	919.6855	CP RES	CP #63 (WLS (CP #1)	73252.1811	36554.3877	759.6400	SPK/CP
CP #23	71953.1727	35980.6789	918.9100	CP 5 RES	CP #64 (WLS (CP #3)	73393.7338	36436.1190	757.8500	SPK/CP
CP #24	72040.3923	36019.9664	904.2994	CP 2 RES	CP #97 (WLS (CP #97)	73481.0768	36367.5072	761.9200	SPK/CP
CP #25	71877.7953	36021.8216	900.7101	CP 7 RES	CP #98 (WLS (CP #98)	73481.0768	36367.5072	761.9200	SPK/CP
CP #26	71963.5956	35980.7473	919.3837	CP RES	CP #65 (WLS (CP #24)	72053.8069	36838.3100	759.1000	MAG/CP
CP #31	72363.1060	34843.1936	773.7300	CP/PK	CP #67 (WLS (CP #288)	71768.5642	36778.4574	739.9400	SPK/CP
CP #32	72499.8846	40566.3440	771.5230	CP/PK	CP #68 (WLS (CP #290)	71782.9901	36852.6388	789.1800	MAG/CP

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PROTECT AND PRESERVE. IN PLACE. ALL SURVEY MONUMENTS AND BENCHMARKS. DO NOT DISTURB, MOVE, OR RELOCATE MONUMENTS OR BENCHMARKS WITHOUT THE PRIOR REVIEW AND APPROVAL BY THE AGENCY HAVING JURISDICTION OVER THE MONUMENT OR BENCHMARK. THE CONTRACTOR SHALL CONTRACT WITH A LICENSED SURVEYOR FOR MONUMENTS REQUIRING DISTURBANCE OR REMOVAL, AND THE SURVEYOR SHALL RESET THE MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR PURSUANT TO BUSINESS AND PROFESSIONAL CODE SECTION 8771.

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<b>REVISIONS</b>			



**FLOWERS & ASSOCIATES, INC.**  
CIVIL ENGINEERS  
201 N. Calle Cesar Chavez, Suite 100 Santa Barbara, CA 93103  
Telephone (805) 966-2224

BY:  DATE: 5/29/09

PROJECT ENGINEER

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COUNTY OF SANTA BARBARA

**COUNTY PARKS**

610 Mission Canyon Road  
Santa Barbara, CA 93105

Design: ELF	Check: BS
Drawn: SS	
Project Engineer:	
Date: _____	

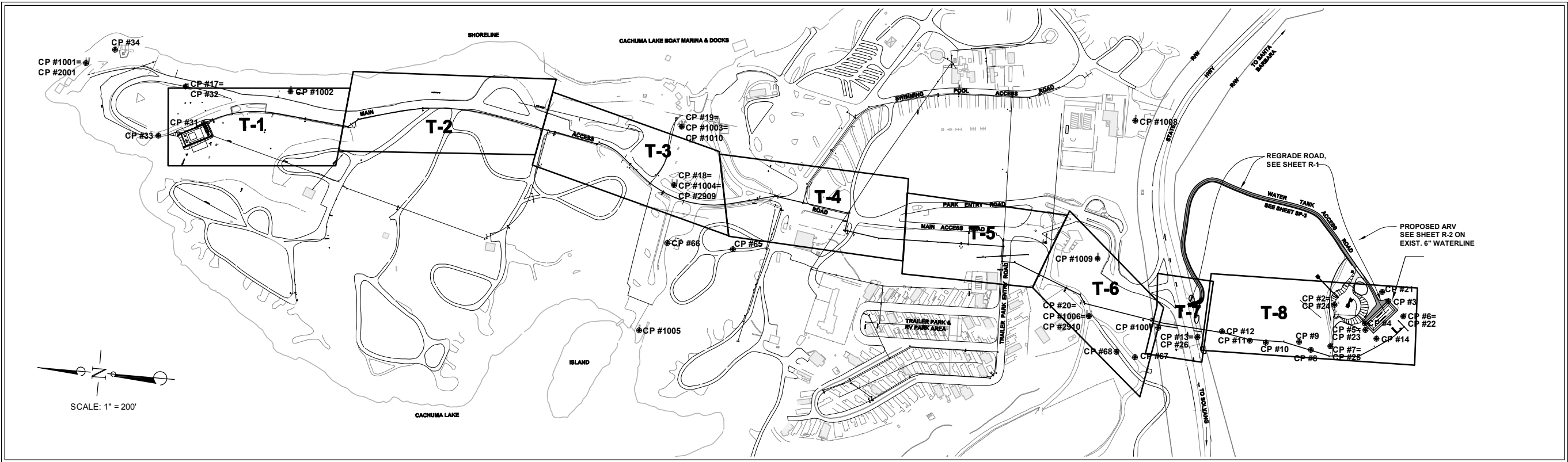
## **GENERAL PROJECT INFORMATION**

**LAKE CACHUMA WATER STORAGE AND  
DISTRIBUTION SYSTEM IMPROVEMENTS**  
COUNTY OF SANTA BARBARA, CALIFORNIA

**G-2**  
SHT. 2 OF 35

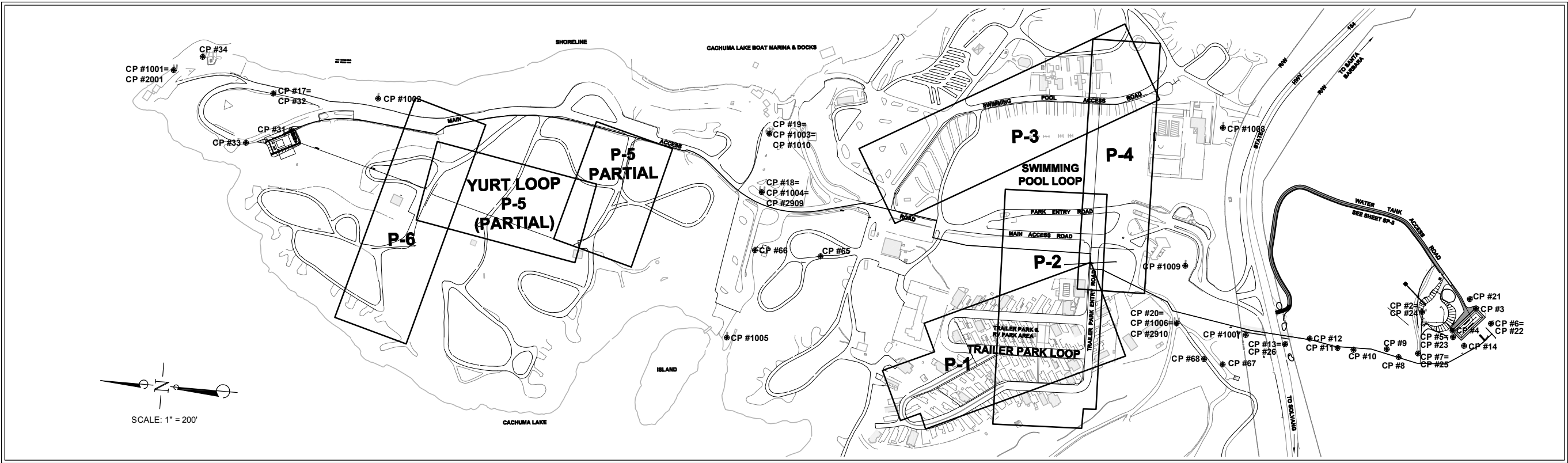
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TRANSMISSION PIPELINE PLAN AND PROFILE SHEET LAYOUT (T-SHEETS)

SCALE: 1" = 200'



FIRE SYSTEM / LOOPING PLAN AND PROFILE SHEET LAYOUT (P-SHEETS)

SCALE: 1" = 200'

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Telephone (805) 966-2224

BY: *[Signature]* PROJECT ENGINEER

DATE: 5/20/09

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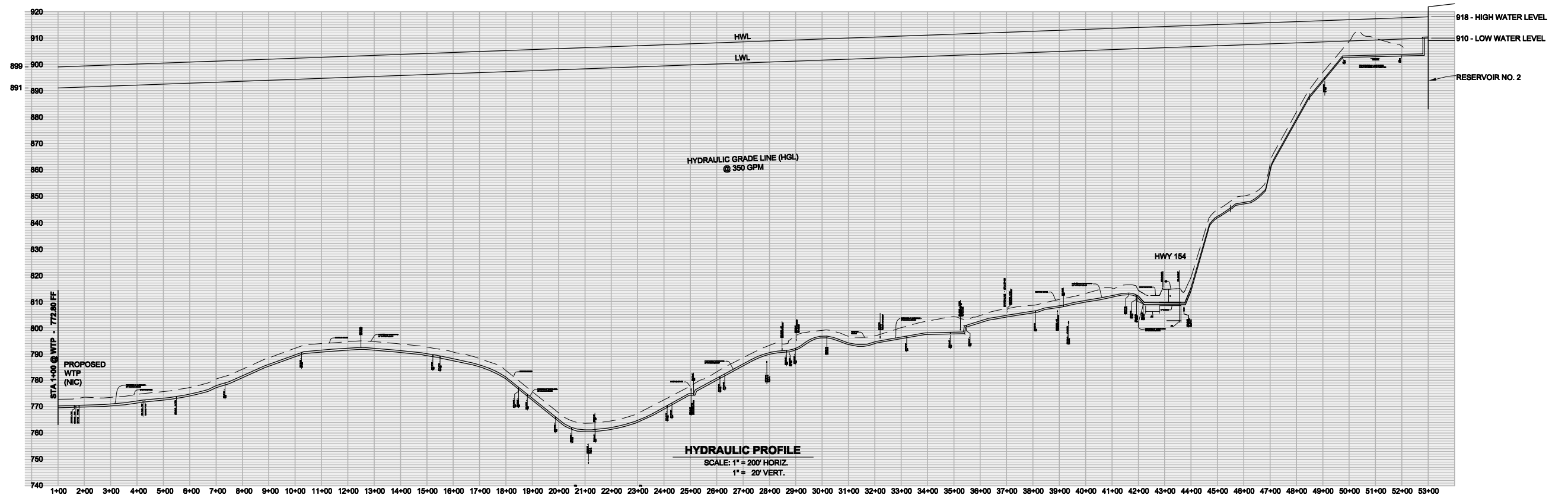
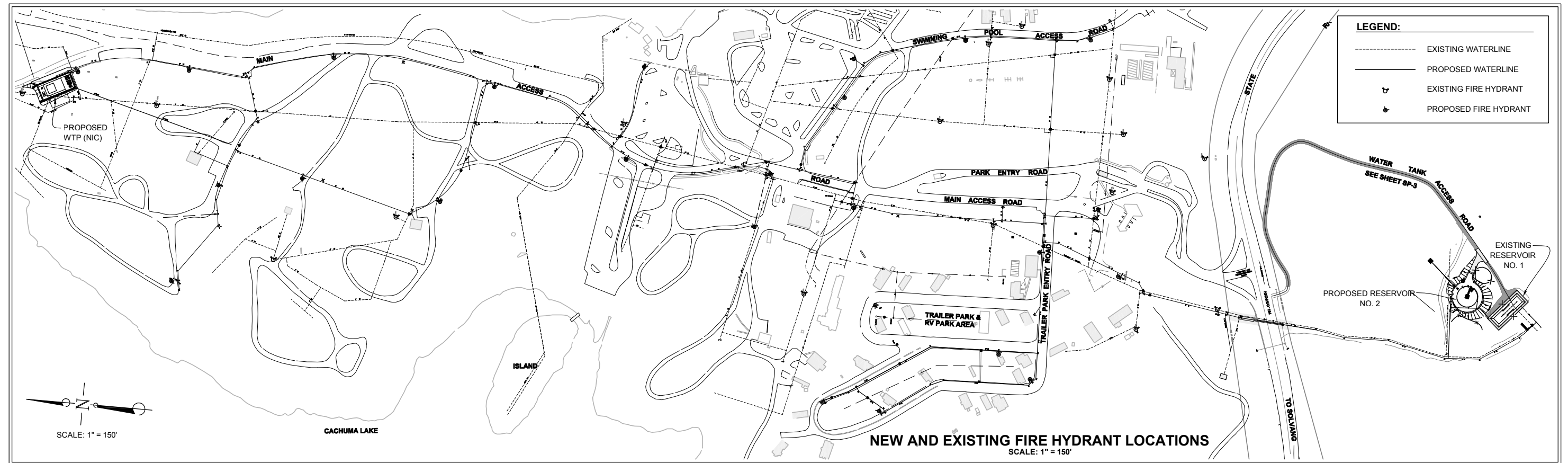
Design: ELF Check: BS  
Drawn: SS  
Project Engineer:  
Date:

**OVERALL SITE PLAN & REFERENCE TO DRAWINGS**  
LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS  
COUNTY OF SANTA BARBARA, CALIFORNIA

**G-3**

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BY: [Signature] DATE: 5/20/09  
PROJECT ENGINEER

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COUNTY OF SANTA BARBARA

**COUNTY PARKS**

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Santa Barbara, CA 93105

Design: ELF	Check: BS
Drawn: SS	
Project Engineer:	
Date:	

# FIRE HYDRANT LOCATION MAP HYDRAULIC PROFILE

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LAKE CACHUMA WATER STORAGE AND  
DISTRIBUTION SYSTEM IMPROVEMENTS  
COUNTY OF SANTA BARBARA, CALIFORNIA

**G-4**

T. 4 OF 35